INL researcher Bruce Mincher won a Best Instructional Programming Emmy® this year for his role in the nuclear chemistry installment of the 14-part television series Understanding Chemistry in Our World. . .

INL researcher participates in award-winning series

By Brianna McNall, *INL Nuclear Science & Technology intern*

An instructional television series about chemistry doesn't usually net an Emmy® award, but this time is an exception.

Understanding Chemistry in Our World, a 14-part television series, and college course created by Coastline Community College, won the Los Angeles Area Emmy® award for Best Instructional Programming this year. Everyone involved with the project was recognized in the award, including one of Idaho National Laboratory's own researchers.

Bruce Mincher, INL Directorate Fellow in the Aqueous Separations and Radiochemistry Department, was contacted by colleagues in southern California about participating in a television program. He'd been working on some collaborative projects with California State University and University of California faculty from Long Beach and Irvine.

"They knew of me and they knew of INL because of that," Mincher said.

Mincher is an INL directorate fellow in INL's Aqueous Separations and Radiochemistry Department

Mincher was invited to be part of the project, particularly for the thirteenth installment about nuclear chemistry.

"I'm mostly involved in actinide solvent extraction for the fuel cycle research and development program," he said. "When it came to heavy element chemistry, they needed someone from our world."

The nuclear chemistry segment was one of the more advanced segments in the series, which started with elements and the periodic table and gradually moved students up to more advanced topics like electrochemistry, nuclear chemistry and biochemistry. With a background in both biology and chemistry, Mincher was one of several experts called on to explain the science behind nuclear power——everything from what radiation is to the current situation with regard to disposition of high-level waste. His work on fuel cycle research and development allowed him to discuss some of the methods of dealing with used fuel.

"The nuclear waste issue is the real issue that has slowed down nuclear power in this country," he said in the program. "How are we going to deal with the waste?"

He talked about the different types of waste that nuclear energy generates, and what methods have been developed to deal with them. While the program did use a pro/con approach to nuclear power, Mincher was discouraged from promoting nuclear power too much.

"I approached it as providing technical information," he said. "They wanted me to stick to the chemistry."

He did get in one quick plug for nuclear power.

"Nuclear energy is a good energy source for the future because it does not contribute to global warming," Mincher said. "It's not a fossil fuel ó you don't burn anything that makes carbon dioxide so you don't add to that carbon dioxide inventory in the atmosphere."

Mincher is responsible for initiating INL's radiation chemistry program for which he was honored with the 2010 INL Distinguished Scientific Achievement Award. He has been with INL since 1984. His work has taken him abroad, to Idaho Falls' sister city Tokai in Japan on exchange, as well as to Europe. And his research has been published in upwards of 50 peer-reviewed journal articles.

"I never thought I'd be around long enough to be one of the old-timers, but now it has happened," he said.

But that doesn't mean he isn't looking out for the newer generation of scientists. He teaches courses in radiochemistry at the Idaho Falls Center for Higher Education, and looked at helping with this series as just another way of teaching.

"When I helped with the series, I never anticipated receiving any award or recognition for it," Mincher said. "The belief that the series would encourage young people to pursue a career in the sciences was reward enough."

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